

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	171	proton adj implant	US-PGPUB; USPAT; USOCR	OR	ON	2006/11/09 12:08
L2	936362	l1 and solar cell	US-PGPUB; USPAT; USOCR	OR	ON	2006/11/09 09:43
L3	0	l1 and (solar adj cell)	US-PGPUB; USPAT; USOCR	OR	ON	2006/11/09 09:43
L4	0	l1 and (solar or photovoltaic)	US-PGPUB; USPAT; USOCR	OR	ON	2006/11/09 09:43
L5	112	l1 and diode	US-PGPUB; USPAT; USOCR	OR	ON	2006/11/09 10:45
L6	1	("4433417").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/11/09 09:47
L7	736	136/255.ccls.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/11/09 12:23
L8	1006	((solar or photovoltaic) near (plurality or wafer)) and interconnect\$4	US-PGPUB; USPAT; USOCR	OR	OFF	2006/11/09 12:25
L9	13	"4070206"	US-PGPUB; USPAT; USOCR	OR	OFF	2006/11/09 14:13
L10	1	("4070206").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/11/09 14:13
L11	1	("4926083").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/11/09 14:14
S1	736	136/255.ccls.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/11/03 15:56
S2	262	S1 and (shunt or diode)	US-PGPUB; USPAT; USOCR	OR	ON	2006/11/03 11:14
S3	54	S2 and shunt	US-PGPUB; USPAT; USOCR	OR	ON	2006/11/03 11:17
S4	43	S2 and shunt	USPAT; USOCR	OR	ON	2006/11/03 11:19

## EAST Search History

S5	5	S1 and shunt and channel	USPAT; USOCR	OR	ON	2006/11/03 11:22
S6	193	"136"/\$.ccls. and (reverse adj bias) and (channel or shunt or diode)	USPAT; USOCR	OR	ON	2006/11/03 11:25
S7	93	"136"/\$.ccls. and (reverse adj bias) and (channel or shunt or groove)	USPAT; USOCR	OR	ON	2006/11/03 12:11
S15	880	(solar adj cell) and (p/n or pin) and (shunt or groove or channel)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/11/03 14:08
S16	564	(solar adj cell) and (p/n or pin) and (shunt or groove or channel)	USPAT; USOCR	OR	OFF	2006/11/03 14:09
S17	154	(solar adj cell) and ((p/n or pin) adj junction) and (shunt or groove or channel)	USPAT; USOCR	OR	OFF	2006/11/03 14:12
S18	0	(solar adj cell) and ((p/n or pin) adj junction) and (reverse adj bias adj protection)	USPAT; USOCR	OR	OFF	2006/11/03 14:12
S19	50	(solar adj cell) and ((p/n or pin) adj junction) and (reverse adj bias)	USPAT; USOCR	OR	OFF	2006/11/03 14:32
S20	170	(solar adj cell) and ((reverse adj bias) adj (current or voltage))	US-PGPUB; USPAT; USOCR	OR	OFF	2006/11/03 16:26
S21	58	S20 and diode with (tunnel or channel or groove or layer)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/11/06 09:40
S23	75	(solar or photovoltaic) and (reverse adj bias\$2) with (protect\$4)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/11/06 11:32
S24	1467	(solar or photovoltaic) and (reverse adj bias\$2)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/11/06 11:32
S26	100	S24 and asymmetric and (current or voltage)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/11/06 11:45
S28	10	kukulka.in.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/11/06 11:41
S29	3	S28 and by-pass and diode	US-PGPUB; USPAT; USOCR	OR	OFF	2006/11/06 11:46
S30	1	S26 and by-pass and diode	US-PGPUB; USPAT; USOCR	OR	OFF	2006/11/06 11:47
S31	31	(solar or photovoltaic) and (by-pass adj diode)	US-PGPUB; USPAT; USOCR	OR	ON	2006/11/06 12:02

## EAST Search History

S32	0	("(solarorphotovoltaic)andvias").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/11/06 17:06
S33	880	(solar or photovoltaic) and vias	US-PGPUB; USPAT; USOCR	OR	OFF	2006/11/06 17:07
S34	43	S33 and dope	US-PGPUB; USPAT; USOCR	OR	ON	2006/11/06 17:07
S35	4	S34 and proton	US-PGPUB; USPAT; USOCR	OR	ON	2006/11/06 17:07
S36	1081	(solar or photovoltaic) and (interconnect\$4 near (contact or wire or circuit or current))	US-PGPUB; USPAT; USOCR	OR	ON	2006/11/07 09:27
S37	662	S36 and semiconductor	US-PGPUB; USPAT; USOCR	OR	ON	2006/11/07 09:30
S38	26	S37 and dope	US-PGPUB; USPAT; USOCR	OR	ON	2006/11/07 09:31
S39	9	S38 and (proton or hydrogen)	US-PGPUB; USPAT; USOCR	OR	ON	2006/11/07 09:34
S40	488	semiconductor and (dope\$4 with ((short adj circuit) or shunt))	US-PGPUB; USPAT; USOCR	OR	ON	2006/11/07 09:36
S41	93	S40 and (proton or hydrogen)	US-PGPUB; USPAT; USOCR	OR	ON	2006/11/07 10:14
S42	8	(solar or photovoltaic) and (doped adj (shunt or channel or vias or tunnel or wire or contact)) and proton	US-PGPUB; USPAT; USOCR	OR	ON	2006/11/07 10:35
S44	2	62-59901	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/11/07 11:12
S50	1728	(solar or photovoltaic) and (short adj circuit adj current)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/11/07 11:42
S51	30	S50 and proton and hydrogen	US-PGPUB; USPAT; USOCR	OR	OFF	2006/11/07 11:38

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S52	3504	semiconductor and (short adj circuit adj current)	US-PGPUB; USPAT; USOCR	OR	ON	2006/11/07 11:42
S53	594	S52 and shunt	US-PGPUB; USPAT; USOCR	OR	ON	2006/11/07 11:43
S54	210	S53 and dope\$2	US-PGPUB; USPAT; USOCR	OR	ON	2006/11/07 11:53
S59	57	(current adj collector) and grid with (front)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/11/07 15:29
S63	151	136/257.ccls.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/11/07 15:48
S64	1421	136/258.ccls.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/11/07 15:52
S65	1224	S64 and semiconductor	US-PGPUB; USPAT; USOCR	OR	OFF	2006/11/07 15:53
S66	818	S65 and dope\$4	US-PGPUB; USPAT; USOCR	OR	ON	2006/11/07 15:53
S67	949	S65 and dop\$5	US-PGPUB; USPAT; USOCR	OR	ON	2006/11/07 15:56
S68	729	S67 and contact	US-PGPUB; USPAT; USOCR	OR	ON	2006/11/07 15:56
S69	301	S68 and grid	US-PGPUB; USPAT; USOCR	OR	ON	2006/11/07 16:15
S70	191	S69 and (proton or hydrogen)	US-PGPUB; USPAT; USOCR	OR	ON	2006/11/08 13:38
S71	1421	136/258.ccls.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/11/08 09:01
S72	1224	S71 and semiconductor	US-PGPUB; USPAT; USOCR	OR	OFF	2006/11/08 09:01
S73	949	S72 and dop\$5	US-PGPUB; USPAT; USOCR	OR	ON	2006/11/08 09:01

## EAST Search History

S74	729	S73 and contact	US-PGPUB; USPAT; USOCR	OR	ON	2006/11/08 09:25
S75	128	S74 and (proton or hydrogen) and diode	US-PGPUB; USPAT; USOCR	OR	ON	2006/11/08 09:01
S76	0	136/89.ccls.	US-PGPUB; USPAT; USOCR	OR	ON	2006/11/08 13:38
S77	15	"2001672"	US-PGPUB; USPAT; USOCR	OR	ON	2006/11/08 13:38